SEQUENCE LISTING

<110> Chuntharapai, Anan
Grewal, Iqbal
Kim, Kyung Jin
Yan, Minhong

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Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val
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Ile Ile Ser Leu Ala Val Phe Val Leu Met Phe Leu Leu Arg Lys Ile
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Ser Ser Glu Pro Leu Lys Asp Glu Phe Lys Asn Thr Gly Ser Gly Leu
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Leu Gly Met Ala Asn Ile Asp Leu Glu Lys Ser Arg Thr Gly Asp Glu
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Pro Leu Pro Ala Met Glu Glu Gly Ala Thr Ile Leu Val Thr Thr Lys
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Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn
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Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser
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gtgtgtgcct gcccaggagg ggggcccagg tgcataaatg ggggtcaggg agggaaagga 780

ggagggagag agatggagag gaggggagag agaaagagag gtggggagag gggagagaga 840

tatgaggaga gagagacaga ggaggcagaa agggagagaa acagaggaga cagagaggga 900

gagagagaca gagggagaga gagacagagg ggaagagagg cagagaggga aagaggcaga 960

gaaggaaaga gacaggcaga gaaggagaga ggcagagagg gagagaggca gagagggaga 1020

gaggcagaga gacagagagg gagagaggga cagagagaga tagagcagga ggtcggggca 1080

ctctgagtcc cagttcccag tgcagctgta ggtcgtcatc acctaaccac acgtgcaata 1140

aagtcctcgt gcctgctgct cacagccccc gagagcccct cctcctggag aataaaacct 1200

ttggcagctg cccttcctca aaaaaaaaaa aaaaaaaaa 1239

<210> 14
<211> 247
<212> PRT
<213> Homo sapiens

<400> 14

Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
1 5 10 15

Gln Glu Glu Arg Trp Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe
20 25 30

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Tyr Asp His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly
        35                  40                  45

Gln His Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser
    50                  55                  60

Pro Val Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val
65                  70                  75                  80

Glu Asn Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg
                85                  90                  95

Gly Ser Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp
            100                 105                 110

Gln Val Ala Leu Val Tyr Ser Thr Leu Gly Leu Cys Leu Cys Ala Val
        115                 120                 125

Leu Cys Cys Phe Leu Val Ala Val Ala Cys Phe Leu Lys Lys Arg Gly
    130                 135                 140

Asp Pro Cys Ser Cys Gln Pro Arg Ser Arg Pro Arg Gln Ser Pro Ala
145                 150                 155                 160

Lys Ser Ser Gln Asp His Ala Met Glu Ala Gly Ser Pro Val Ser Thr
                165                 170                 175

Ser Pro Glu Pro Val Glu Thr Cys Ser Phe Cys Phe Pro Glu Cys Arg
            180                 185                 190

Ala Pro Thr Gln Glu Ser Ala Val Thr Pro Gly Thr Pro Asp Pro Thr
        195                 200                 205

Cys Ala Gly Arg Trp Gly Cys His Thr Arg Thr Thr Val Leu Gln Pro
    210                 215                 220

Cys Pro His Ile Pro Asp Ser Gly Leu Gly Ile Val Cys Val Pro Ala
225                 230                 235                 240

Gln Glu Gly Gly Pro Gly Ala
                245
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<210> 15

<211> 595
<212> DNA
<213> Homo sapiens

<400> 15
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gccctgcgtc ccggccgagt gcttcgacct gctggtccgc cactgcgtgg cctgcgggct 120

cctgcgcacg ccgcggccga aaccggccgg ggccagcagc cctgcgccca ggacggcgct 180

gcagccgcag gagtcggtgg gcgcgggggc cggcgaggcg gcgctgcccc tgcccgggct 240

gctctttggc gcccccgcgc tgctgggcct ggcactggtc ctggcgctgg tcctggtggg 300

tctggtgagc tggaggcggc gacagcggcg gcttcgcggc gcgtcctccg cagaggcccc 360

cgacggagac aaggacgccc cagagcccct ggacaaggtc atcattctgt ctccgggaat 420

ctctgatgcc acagctcctg cctggcctcc tcctggggaa gacccaggaa ccaccccacc 480

tggccacagt gtccctgtgc cagccacaga gctgggctcc actgaactgg tgaccaccaa 540

gacggccggc cctgagcaac aatagcaggg agccggcagg aggtggcccc tgccc 595

<210> 16
<211> 184
<212> PRT
<213> Homo sapiens

<400> 16

Met Arg Arg Gly Pro Arg Ser Leu Arg Gly Arg Asp Ala Pro Ala Pro
1 5 10 15

Thr Pro Cys Val Pro Ala Glu Cys Phe Asp Leu Leu Val Arg His Cys
20 25 30

Val Ala Cys Gly Leu Leu Arg Thr Pro Arg Pro Lys Pro Ala Gly Ala
35 40 45

Ser Ser Pro Ala Pro Arg Thr Ala Leu Gln Pro Gln Glu Ser Val Gly
50 55 60

Ala Gly Ala Gly Glu Ala Ala Leu Pro Leu Pro Gly Leu Leu Phe Gly
65 70 75 80

Ala Pro Ala Leu Leu Gly Leu Ala Leu Val Leu Ala Leu Val Leu Val
85 90 95

```
Gly Leu Val Ser Trp Arg Arg Arg Gln Arg Arg Leu Arg Gly Ala Ser
            100                 105                 110

Ser Ala Glu Ala Pro Asp Gly Asp Lys Asp Ala Pro Glu Pro Leu Asp
        115                 120                 125

Lys Val Ile Ile Leu Ser Pro Gly Ile Ser Asp Ala Thr Ala Pro Ala
    130                 135                 140

Trp Pro Pro Pro Gly Glu Asp Pro Gly Thr Thr Pro Pro Gly His Ser
145                 150                 155                 160

Val Pro Val Pro Ala Thr Glu Leu Gly Ser Thr Glu Leu Val Thr Thr
                165                 170                 175

Lys Thr Ala Gly Pro Glu Gln Gln
            180
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<210> 17
<211> 265
<212> PRT
<213> Homo sapiens

<400> 17

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Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val Asp
1               5                   10                  15

Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala Met Arg
            20                  25                  30

Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly Thr Cys Met
        35                  40                  45

Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg Thr Cys Ala Ala
    50                  55                  60

Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln Gly Lys Phe Tyr Asp
65                  70                  75                  80

His Leu Leu Arg Asp Cys Ile Ser Cys Ala Ser Ile Cys Gly Gln His
                85                  90                  95

Pro Lys Gln Cys Ala Tyr Phe Cys Glu Asn Lys Leu Arg Ser Pro Val
            100                 105                 110
```

```
Asn Leu Pro Pro Glu Leu Arg Arg Gln Arg Ser Gly Glu Val Glu Asn
        115                 120                 125

Asn Ser Asp Asn Ser Gly Arg Tyr Gln Gly Leu Glu His Arg Gly Ser
    130                 135                 140

Glu Ala Ser Pro Ala Leu Pro Gly Leu Lys Leu Ser Ala Asp Gln Val
145                 150                 155                 160

Ala Leu Val Tyr Ser Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys
                165                 170                 175

Cys Phe Leu Val Ala Val Ala Cys Phe Leu Lys Lys Arg Gly Asp Pro
            180                 185                 190

Cys Ser Cys Gln Pro Arg Ser Arg Pro Arg Gln Ser Pro Ala Lys Ser
        195                 200                 205

Ser Gln Asp His Ala Met Glu Ala Gly Ser Pro Val Ser Thr Ser Pro
    210                 215                 220

Glu Pro Val Glu Thr Cys Ser Phe Cys Phe Pro Glu Cys Arg Ala Pro
225                 230                 235                 240

Thr Gln Glu Ser Ala Val Thr Pro Gly Thr Pro Asp Pro Thr Cys Ala
                245                 250                 255

Gly Arg Thr Ala Pro Pro Arg Glu Gly
            260                 265
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